



Leathers for the lifestyle and sports footwear market is PrimeAsia Vietnam's strength. CREDIT: PALLADIUM

Tannery of the Year: PrimeAsia Vietnam, Ba Ria, Vung Tau, Vietnam

PrimeAsia set up its third tannery, in Vietnam, in 2002 to build on the success of its facilities in Taiwan and China. The Vietnam site is now an important component of the group and is working hard to keep its performance levels high.

Work at the PrimeAsia Vietnam tannery—an extensive complex of buildings in which glass and natural light are prominent, near the town of Ba Ria in Vung Tau province—starts with wet blue hides from North and South America, from which it produces finished leather, which it supplies to footwear factories across the region and beyond. The material is a range of “sports-inspired and lifestyle leathers” that go to factories in China, the Dominican Republic, India, Indonesia, Thailand, and other parts of Vietnam, as well as to the US—for manufacturers to make into shoes for some of the biggest footwear brands in the global market.

The tannery is one of a group of three that PrimeAsia operates, with the others located in China and Taiwan. PrimeAsia also has sales

and service offices in Indonesia, Thailand, the United Kingdom and the US. PrimeAsia's origins are in Taiwan, where it started out in 1996 as a joint venture between US company Prime Tanning and Pou Chen, one of the largest footwear manufacturing companies in the world (it makes shoes for 53 footwear brands and on average in 2009 produced 20 million pairs a month). The idea was a strong one: Pou Chen was expanding its production base to new factories in different parts of Asia and wanted to produce leather closer to its manufacturing facilities, while Prime Tanning was one of the industry's leading producers of footwear leather.

The partners' first act was to reorganise the Taiwanese tannery near the city of Chang Hua, (which had originally been set up as a result of a previous joint venture) and the relationship blossomed from



Tannery of the Year Asia 2009: Finalist

there. The following year, 1997, work began on the second facility, in Dongguan, China, where the drums started turning in July 1998. By the time PrimeAsia Vietnam (PAV) joined the group in 2002, Pou Chen had bought its partner out; PrimeAsia became a wholly owned subsidiary of the powerful Taiwanese corporation.

PrimeAsia's chief executive, Jon Clark, says of this: "PrimeAsia has inherited a legacy of innovation from Prime Tanning. We've also learned important lessons, about what it takes to build a passionate customer base. PrimeAsia has worked to mix our great heritage with a new focus to establish our own identity."

Under new management

Since the group's current management team, headed by Mr Clark, took up the reins on January 1, 2008, the tannery has consolidated its position as a preferred material supplier to the manufacturing partners of adidas, Nike, Timberland, and other brands—big and small—in the sports and lifestyle, footwear markets.

He believes that one of the criticisms any objective observer of the leather industry over the last decade or so could justifiably make is that tanners in the sports and lifestyle sectors have tended to look on the footwear brands as their only customers. "One of the significant changes that have occurred in recent years is that we recognise that we have multiple customers," he continues. "Our business is far more complicated now: there are the global brands on the one hand and, on the other, the people in the manufacturing companies who buy our leather."

He explains that, in appointing a new senior management team, the owners of PrimeAsia, Pou Chen, were not seeking to take a back seat. In the face of changes that they recognised were taking place in the footwear business, Pou Chen's leaders wanted to make sure the right people, people with extensive experience of the tanning sector, were in charge of producing leather. He adds: "The big change was that I reformed the team in December 2007. The creation of a new management team for PrimeAsia, with the correct people in the correct place, people focused and accountable for procurement, environment, efficiencies operations, development, and marketing, is what made the difference. And the single biggest story within



Main entrance to PrimeAsia Vietnam.

PrimeAsia Vietnam and its excellence is chief operating officer, Charly Tsai, and the management team he's put together. Charly is the architect of all that."

Mr Clark says Pou Chen has been "nothing but supportive" of what he and his team have tried to do since he took over as chief executive, "It's important to be clear about this," he says. "Pou Chen only wants success for PrimeAsia."

As its contribution, PAV achieved record results last year. It made 38.6 million square-feet of leather in 2009, compared to 38 million in 2008, 26.8 million in 2007 and 29.5 million in 2006. The production target for 2010 is down from last year at 37.7 million. There are reasons for this, which ought to resonate with everyone in the leather industry.

The company's director of sales and marketing in Asia, Jon Hopper, says that some big-name customers are giving few indications that their usage of leather this year will pick up, despite the fact that the price of hides (and, consequently, of finished leather) in 2009 was the lowest in decades. He explains: "Their consumption of leather is not increasing. This is the consequence of the 2006 and 2007 hide prices being so high. The development cycle of the big sports and lifestyle brands is between 18 and 20 months. They made their decisions on material specifications for the shoes they made in 2008/2009 at that time, when the prices were high. We work on long price-

cycles; for example, we're now giving prices for the autumn 2011 season, even though production on those shoes won't start until February next year. By the time prices began to drop, in the fourth quarter of 2008, they were making decisions on the materials they would use in their 2009/2010 shoe production, but the drop in prices wasn't enough to convince them to come back to leather. This is a huge question; how to win them back."

Jon Clark comments: "We, as an industry, have to take responsibility and make sure leather stays as a core material, bringing value to the footwear marketplace."

But it is the responsibility of tanners to tell the story of the prestige of leather, he says, adding: "That's on our shoulders. The tanners that are around in the future will be the ones who do this. It's my responsibility to stand up in front of key customers and say I disagree with their decision to use PU-coated splits instead of full-grain leather, and here's why. I have to try to convince consumers that shoes made from full-grain leather are better. That's not their job; it's our job."

Cornerstones

PrimeAsia Vietnam keeps to four core philosophies that Jon Clark asks the team there to keep in mind when making any and every decision. The first of these is that he wants this tannery, and the other two in the group, to be a reliable supply chain



From a technical point of view

PrimeAsia Vietnam manufactures a full range of upper leathers for classic, sports and outdoor footwear mainly within the range of 1.2/1.4 to 2.0/2.2 mm in substance. All of these leathers are made from the wet blue to finished state within five manufacturing halls of area 25,000 square-metres, set on a 20 hectare site in an industrial complex 90 kilometres from Ho Chi Minh City. In addition, there are five warehouses for storing raw materials, chemicals and finished leathers that amount to more than 6,000 square-metres. There is considerable room for expansion, and this could include a full wet blue plant if required.

A significant factor that has been taken into account by the company is that around 55% of the workforce are women, and they are involved in handling heavy hides and machinery. Moreover, these women tend to be small in stature, so there is intelligent use of systems to minimise manual effort in the movement of goods within the plant, and to ease the presentation of leather to machine operations.

The size of production batches can vary appreciably, and there is a wide range of leathers in terms of colour and texture. This requires a high degree of flexibility within many mechanical operations, and although the production is considerable at some 38 million square-feet per annum, with an average throughput time of seven days, the movement of

goods between operations cannot be based on fully automated systems. Accordingly, all of the halls are spacious with wide corridors for fast movement of individual batches.

On entering production all of the wet blue hides are wet back in a pair of elevated 4.5 x 4.5 metre wooden drums, then hooked onto a conveyor line for delivery to wet blue table inspection. Each hide is assessed by the team, then sammed, and the goods made up into individual batches of varying size



Wet blue are opened, inspected and graded by the four operatives on the stainless steel table, then slid forward into the samming machine.



After wetting back in two elevated wooden drums, the wet blues are hooked onto a line conveyor for delivery to wet blue sorting.



Some of the 22 dyeing drums. These vary in size to accommodate the different batch sizes.

partner, focusing on creating "better value"—in terms of the leather it produces, the levels of creativity it puts into that and the service it provides to its customers. "We need to create peace of mind for brands and factories," he explains. "The factories need to understand that the leather they have ordered is going to get there when they need it, that they are going to be able to cut it and use it as they have planned. We have created a full-service tannery that is innovative in all aspects of leather making in the regions of consumption."

The second of the four core philosophies stems from the heritage of creation and innovation referred to earlier. PrimeAsia demands that its tanneries create good products, not just 'decorate' leather. "I'm not satisfied we're there yet," Mr Clark continues, "but I want us to be a leader in developing technical and lifestyle leathers. We need to innovate in services as well, in IT, in management, in all areas of our operation. If we stand still, we lose. We always need to be looking forward."

Global citizenship is also a cornerstone of

the company's identity, he says. PAV and its sister tanneries pay attention to the impact they have on the environment and on the communities with whom they share resources. To follow local, national and international regulations is part of being true to itself, the chief executive insists.

PrimeAsia has a stated ambition to be best in class, in all aspects of its business. Mr Clark insists that an operation like PAV can only be successful if its customers are. If it makes product that goes into shoes that are always discounted, it is not going



before splitting, siding-up and shaving.

The dyeing, retanning and fatliquoring operations take place in a double bank of 22 elevated dye drums serviced from a central service area. These are conventional drums, but of various dimensions to accommodate the different batch sizes.

Within the processing close attention has been paid to the development of compact processes, and the use of compatible materials. This is to reduce the time and power consumed in processing, minimise the water requirement, and maximise the uptake of chemicals. There is also focus on the use of natural products that include colourants such as walnut shells, tree roots and bark, and waxes and oils such as soybean, carnauba wax, and lanolin. Products created from by-products are also used, such as a filler created from enzyme-digested chicken feathers, and these combined developments have resulted in a significant reduction in petroleum-based products and chemicals.

In addition to the main retanning array, there is a sample department of 26 stainless steel drums of various sizes suited to processing smaller batches ranging between 25 square-feet (one side) and 2,000 square-feet of leather.

After samm/set and vacuum drying on a pair of seven-plate Cartigliano vacuum dryers, the different size batches are air-dried on a pole conveyor, taking between two and three days, according to substance and retannage. This is followed by water-spray conditioning, stacking for four hours, then

vibration staking. If required the leathers are buffed and tumbled in a dedicated area with external dust collection, before crust inspection and grading.

There are two finishing departments: one is used for casual textures and dark colours, the other for white or pale shades and pigmented finishing. The majority of the pigment finishing is water-based with the finishes applied by swabbing machines, then followed by hand-padding on a conveyor to ensure good adhesion and uniform cover. The leathers are then



Part of the pole-drying unit for natural drying of all leathers after vacuum drying.



Part of the dyeing department, and the materials weighing and dispensing area that services drums set on both sides of the mezzanine.



All leathers are spray conditioned after natural air-drying.

to be successful. "So our accountability is to make the customer successful," he concludes. "I know we'll be successful if our customers are successful. I know we'll create demand if our customers are successful with the product we support. There are numerous areas in which we have not yet made ourselves the best in class, but we are not going to rest until we can say we are best in class in all areas."

He is a firm believer that financial stability only comes about when all the cornerstones are in place. And, while he

knows the bottom-line is of great importance, he believes in investing in his tanneries. "If we only operated on cost, we'd never do anything," he says. "We operate on investment. An example is that some people thought we were crazy, in the midst of a global recession, to invest in the solar energy plant we have installed at our tannery in Vietnam. I have responded by saying we would be crazy not to have done it. As we strive for the industry to earn more respect, one area of investment and change must be clean and renewable energy."

Migrant workers

Of PAV's total workforce of 1,200 people, few are locals. Charly Tsai, the tannery's chief operating officer, explains that most are economic migrants who have come to Ba Ria, which is about 90 kilometres from Ho Chi Minh City, to find work to support their families. There is a pretty even spread: 40% come from the northern provinces, 30% from central Vietnam and 30% from other parts of the south. There is also a contingent of around 65 people from China and Taiwan, working mostly on the management side,



spray-finished using three spray cabinets and tunnel-drying units. All of these machines can be linked together and operated in line, or used individually. Roller-coating machines are being introduced to replace the mopping machines, and, based on trials at PrimeAsia China, new metering equipment is being fitted to the spraying assemblies that will reduce materials usage by 15%.

One major feature of the plant is the size of the halls, especially the pigment finishing hall, which has a floor space of 50 x 208 metres, and a height of around 20 metres. The height and structure of these buildings ensures natural light and ventilation, which, coupled with heavy insulation to the walls and roof, maintains cool working conditions. The few support pillars, and the wide pathways not only allow fast movement of goods but enable fast reconfiguration of machine arrangements to meet changes in operational demands. It has been possible to detach electrical, steam, compressed air and water supply from a spray cabinet and drying tunnel, unbolt from the floor, move across the department and bring back into operation within 24 hours, with less than 20 minutes' loss of localised production time.

All of the finished leathers are finally assessed in six inspection stations, each with three or four people grading to the SATRA five point leather grading table. SATRA, the international research and technology centre, visits the factory every year, and all those within the inspection teams are SATRA-trained and approved. In addition to two types of

overhead lighting in each station, additional lights are set horizontally to the inspection tables. This avoids a direct reflection of light from the leather surface, and reveals any small surface defects.

All finished leather batches are sampled, tested for compliance in a SATRA-accredited laboratory to each customer's standards, and samples are retained in the master centre as part of a comprehensive traceability system. 



Finish is applied to pigmented leathers using a felt covered roller. The finish is then hand padded by the team onto the leather to ensure good adhesion and even coverage.



Measurement of substance at crust inspection and selection.



The Instron test for tensile strength is among the routine tests performed in the finished leather assessment laboratories.

handling customer service, shipping, logistics planning and so on.

The north of the country is, as yet, less industrialised than the south, with only a few factories for products such as semiconductors. "We have a recruitment team that travels to the north frequently to recruit workers," Mr Tsai explains. "We are successful in attracting good workers and it helps that we have extensive dormitory facilities at the tannery where, at the moment, we accommodate 800 workers. We expanded it as recently as last September."

It's part of the law of the land that workers housed in this type of facility have to have high levels of care, so the complex includes a nurse's station with two qualified nurses on the payroll. In addition, a substantial number of tannery workers are qualified first-aiders. Recreation facilities on the site include a social room and a library, as well as a canteen that provides the workforce with three meals a day. There is a football field, too, which is in frequent use for matches among the workers.

The company says it has worked hard to

make sure the dialogue it maintains with its workforce is positive, although there have been labour issues across Vietnam in recent years. "It's not difficult to run a business in Vietnam," says Mr Tsai, who is originally from Taiwan. "The workers are good and we receive plenty of practical help from the local authorities. For example, they have taken a very active interest in issues such as our fire-drills, coming on site and helping us plan these exercises in accordance with the best practice the government has established."

The authorities also have a role to play in



determining minimum wage levels, but the rises seem to PAV as an employer to have been fast and furious in recent years. The government's official figures say that the increase is between 10% and 12% a year, with two increments per annum, but the tannery's experience in 2007, at the time of the unrest, was that the increase was between 50% and 70%. "The situation has calmed down a lot since then," Mr Tsai says.

Around 55% of the workforce are women, which is in keeping with the government's ambition to empower women as an important means of alleviating poverty. All PrimeAsia Vietnam employees work six days a week if they wish with a maximum of eight hours a day, and have 12 days' annual leave, in addition to the important public holidays. There is a career development path, with people being promoted every year and others receiving additional financial reward for building up specific skills.

The facilities and opportunities on offer to workers at PAV are good. If they were not, the employee turnover rate would be higher than the current rate of 5% per month, and the recruitment team would have a tougher time convincing people that PrimeAsia will take the best care it can of its workers. Of course, being a big company, with plenty of space, may make this easier.

David Wright, PrimeAsia's chief environmental officer, says that PrimeAsia Vietnam does much more than the minimum for workers. "You don't have to offer accommodation or a canteen, and often companies that do have those benefits in place charge the workers for them, deducting money from their salaries. That's why our figure of 5% for worker turnover is unheard of."

Jon Clark talks extensively about steps the company and the management team in place at PAV take to create a positive environment for the workforce. Part of this is embracing the local culture, including the culture of organised labour. Yes, the government plays a role in determining wage levels, but employers negotiate directly with trade unions. Mr Clark continues: "We're comfortable with that. We believe we have a healthy and safe living arrangement at the tannery, and the management team in Vietnam takes extra steps to take care of the workers."

As an example, he points to quality expert Peter Gregorakos, the director of



Open construction provides light and good ventilation, and enables easy movement of goods between operations.



Selection of finished leathers.

PrimeAsia's product expectation and application team, whose base is at PAV. He describes Mr Gregorakos as a piece of his conscience, someone who is always pushing on the workers' behalf. Most recently, the company put up a list of valuable prizes for the Vietnamese workforce to win at an end-of-year (lunar year) party in the tannery's dormitory, including new television sets and bicycles. "These are gifts that the workers could probably never afford on their own," Mr

Clark says. "Management cares about what is going on. These are the things that are giving us the 5% turnover."

PrimeAsia is also certified to BS OHSAS 18001, which is an occupational health and safety management systems standard, and audited by individual brands against code of conduct requirements. These audits verify compliance with all local and international regulations. David Wright says PAV constantly meets or exceeds these requirements.



From a technical point of view

Environmental responsibilities

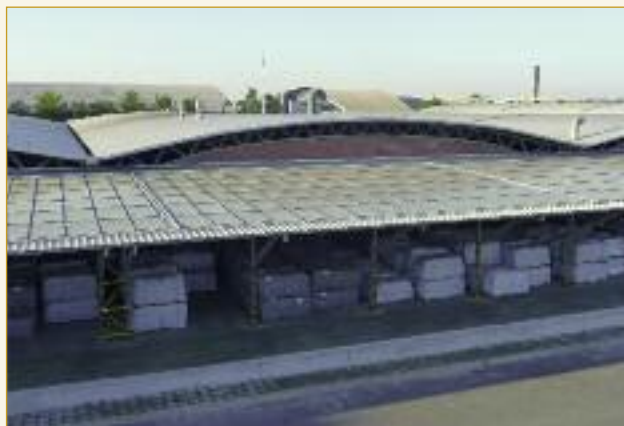
PrimeAsia Vietnam operates under ISO 14001 and has been accredited with gold status by the Leather Working Group protocol for sustainable environmental performance and appropriate business practices for the second time in three years. PrimeAsia's chief environmental officer, David Wright, says: "To achieve Gold in the LWG takes a lot of hard work. You have to look at ways to minimise energy and water and re-use everything you can till it cannot be used any more." Over and above this accreditation, PrimeAsia expects its suppliers to have a strong regard for environmental issues, and several schemes have already been initiated.

More than 95% of all wet blue purchased for this facility comes from plants which have been audited against the Leather Working Group protocol. PrimeAsia has started to work closely with its supply chain. Several trips have taken place over the last two years to help the suppliers understand the protocol and allow them to achieve positive results. The scope of this supply chain is global, from US, Brazilian, Australian and Asian wet blue sources. Companies wishing to do business with PrimeAsia Vietnam are beginning to schedule audits independently knowing this is a requirement for partnership. Many of the suppliers that have gone through the process of being audited have reported back that this experience has been key to marked improvements in environmental performance.

David Wright points out that the company's suppliers of wet blue and crust have "some great environmental practices". For example, one supplier uses a reedbed system that is designed to handle 17 million litres of effluent per day, before final discharge into surface waters. Another supplier grows trees for furniture or fuel, and these are irrigated with treated effluent from the waste water treatment plant. Other suppliers use energy from local waste streams; one uses shells from locally harvested macadamia nuts to power its boiler for the slaughterhouse and tannery, and another recovers methane from its wastewater treatment plant for heating its process water.

Wastewater treatment and water use

All of the water used for wetting back the wet blue stock is recycled. Initially, the water is provided from the municipal supply, but this is collected after draining, screened to remove fine particles and grease and then recycled within wet-back.



Part of the array of solar panels: these are set over an external storage area that houses the insulated hot water storage tanks. In 2009 there was a year-on-year energy reduction of 18%, and a further 8% is planned for 2010.



Part of the activated sludge treatment process within the tannery effluent treatment plant. The site was originally a cashew nut farm, and many mature trees have been retained around the site.

The system needs topping up with fresh water, but in the wet season (about five months of the year) rainwater water is collected from the roof area to replace the municipal supply for use within this operation.

Group pressure

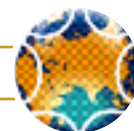
PrimeAsia is, with Nike and Timberland, a founding member of the Leather Working Group (LWG)—the multi-stakeholder group that assesses the environmental performance of tanneries, (mostly devoted to footwear)—and David Wright has been a member of the steering committee from the outset. "It's a great idea," he says. "Customers used to audit the tanneries all the time to ensure environmental compliance. We wanted to come up with one audit that everyone

could be benchmarked against and that would lay down targets for improvement, and create a better perception of the industry. This is an industry that sometimes gets bad publicity from misinformed information, as we all know."

He knows the documents that make up the LWG protocol because he helped draw them up. "We believe in it," Mr Wright continues. "It's been a huge undertaking, but we are seeing the benefits. It's even allowed us to be competitive amongst our own tanneries to see who can use less

energy, less water, fewer chemicals. When our technical team creates new leather we use these principles to make the leather." He points out that PrimeAsia has also pushed the principles that underpin the group upstream to its own key suppliers of wet blue hides, persuading them to take part and helping them prepare for audit. But the company has made it clear that it will only do business with suppliers who can pass the LWG audit.

As an entity, the LWG is still in its infancy, Jon Clark says. As it was created



The effluent treatment is conventional, comprising balancing and mixing tanks for all of the effluent from dyeing/retanning/fatliquoring processes and washings from finishing operations. The effluent is pH-adjusted, then polymer aluminium salts are used for flocculation reduction in the effluent, which is then clarified. The supernatant is then offered to activated sludge treatment where it is retained for 1.5 days. Once discharged from the site, the effluent is again processed within a treatment plant that processes all of the effluent from the wider industrial zone.

However, there is considerable reuse of the end-of-pipe tannery effluent within the site for plant irrigation and washing purposes. These include floor areas, and all machinery both within wet processing areas and finishing departments. It also includes water in the entrapment systems for overspray within the spraying cabinets.

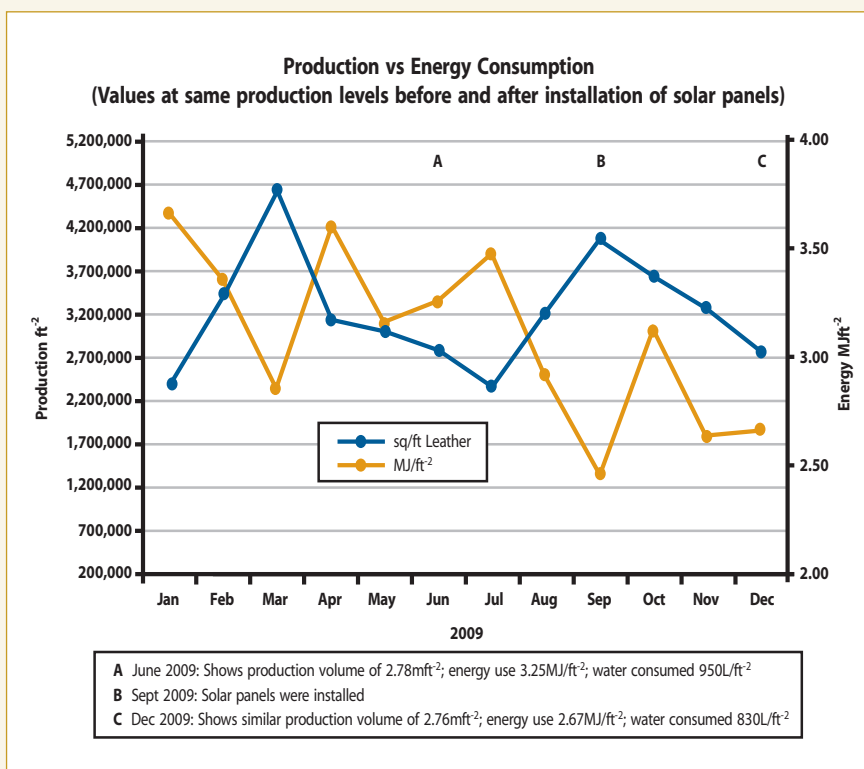
Solid waste disposal

All of the solid waste produced is disposed of following guidelines mandated by the Vietnamese government, and PrimeAsia is required to use contractors nominated by local government. Buffing dust and shavings are compacted into blocks on site, and all of the solids from the wastewater treatment plant are dried and compacted in sealed polypropylene bags. These solids are weighed, then transported to a processing site where together with other waste it is segregated. These wastes are then either used for fuel, or mixed and solidified for land disposal. Regardless, PrimeAsia independently ensures that the contractors follow government requirements and fulfil licensing requirements by auditing them periodically through the year. David Wright comments: "It is still our responsibility to ensure that the disposal of waste is being carried out in a correct and legal manner"

Solar energy

Considerable savings in heavy fuel oil have been made by the installation of a solar energy system, consisting of 768 solar panels, each 2 x 1 metre in size. The panels have been set on a covered area at the side of the main plant. The system cost \$500,000, was made in Taiwan, and is capable of raising 75 cubic-metres of water from 25°C to 75°C each day. The main hot water storage comprises two heavily insulated tanks, each of a capacity of 25 cubic-metres, set beneath this solar array for storage of heated water, and six tanks holding up to 15m³ each placed within the tannery.

The system operates by filling the six smaller tanks from the external supply, then if required, the temperature of the water within these tanks is boosted using live steam. This provides enough water to meet the needs of the plant until the solar supply is refilled.



in a footwear environment, he says it's only natural for the emphasis to be on that market. In time, he believes it will open up to other industry players. "The space will fill in," he says. "Everyone is welcome. The thing that brings us all together is a desire for continuous improvement and to take part in a transparent measurement system. The LWG is one avenue that's available for people to take."

He argues that "far greater transparency" is one of the changes that

has occurred in the leather industry in the last few years, and says it's "a positive, positive change".

There has also been a change in PrimeAsia's relationship with its core chemical suppliers, saying representatives from some companies, including Chemtan and Union Chemical, are part of his company's creative teams, working hand-in-hand with the tanneries to develop new products. "The things we believe in are the things our customers and suppliers believe in," he concludes. "We're

no longer living in that closed world we once had."

It is clear that PrimeAsia has embraced the concept of progressive change. In a recent industry article Jon Clark stated: "The value equation has always included cost, quality, service and innovation. Today's new value package has the added element of global responsibility and with this comes a new level of accountability." PrimeAsia Vietnam's facilities, structure, people and philosophies are all geared to embrace this ever-changing challenge.